

to eliminate hazards to employees to the extent practicable.

(2) The employer shall eliminate slippery conditions, such as snow and ice, on walkways and working surfaces as necessary. If it is not practicable for the employer to remove slippery conditions, the employer either shall:

(i) Restrict employees to designated walkways and working surfaces where the employer has eliminated slippery conditions; or

(ii) Provide slip-resistant footwear in accordance with 29 CFR part 1915, subpart I.

(3) The employer shall store materials in a manner that does not create a hazard for employees.

(4) The employer shall maintain easy and open access to each fire-alarm box, fire-call station, fire-fighting equipment, and each exit, including ladders, staircases, scaffolds, and gangways.

(5) The employer shall dispose of flammable and combustible substances, such as paint thinners, solvents, rags, scrap, and waste, or store them in covered fire-resistant containers at the end of each workshift or when the job is completed, whichever occurs first.

(b) *Walkways.*

(1) In addition to the requirements in paragraph (a), the employer also shall ensure that each walkway:

(i) Provides adequate passage;

(ii) Is clear of debris, including solid and liquid wastes, that may create a hazard for employees;

(iii) Is clear of tools, materials, equipment, and other objects that may create a hazard for employees; and

(iv) Is clear of hoses and electrical service cords. The employer shall:

(A) Place each hose and cord above walkways in a location that will prevent injury to employees and damage to the hoses and cords;

(B) Place each hose and cord underneath walkways;

(C) Place each hose and cord on walkways, provided the hoses and cords are covered by crossovers or other means that will prevent injury to employees and damage to the hoses and cords; or

(D) Protect each hose and cord by other suitable means.

(2) While a walkway or part of a walkway is being used as a working surface, the employer shall cordon off that portion to prevent it from being used as a walkway.

(c) *Working surfaces.* In addition to the requirements in paragraph (a), the employer also shall ensure that each working surface:

(1) Is cleared of tools, materials, and equipment that are not necessary to perform the job in progress;

(2) Is cleared of debris, including solid and liquid wastes, at the end of each workshift or job, whichever occurs first;

(3) Is maintained, so far as practicable, in a dry condition. When a wet process is used, the employer shall maintain drainage and provide false floors, platforms, mats, or other dry standing places. When the employer demonstrates that this procedure is not practicable, the employer shall provide each employee working in the wet process with protective footwear, in accordance with 29 CFR part 1915, subpart I.

§ 1915.82 Lighting.

(a) *General Requirements.* (1) The employer shall ensure that each work area and walkway is adequately lighted whenever an employee is present.

(2) For landside areas, the employer shall provide illumination that meets the levels set forth in Table F-1 to § 1915.82.

TABLE F-1 TO § 1915.82—MINIMUM LIGHTING INTENSITIES IN FOOT-CANDLES

Lumens (foot-candles)	Area or operation
3	General areas on vessels and vessel sections such as accessways, exits, gangways, stairs, and walkways.
5	General landside areas such as corridors, exits, stairs, and walkways.
5	All assigned work areas on any vessel or vessel section.
5	Landside tunnels, shafts, vaults, pumping stations, and underground work areas.
10	Landside work areas such as machine shops, electrical equipment rooms, carpenter shops, lofts, tool rooms, warehouses, and outdoor work areas.
10	Changing rooms, showers, sewerage toilets, and eating, drinking, and break areas.
30	First aid stations, infirmaries, and offices.

§ 1915.83

NOTE TO TABLE F-1 TO §1915.82: The required illumination levels in this table do not apply to emergency or portable lights.

(3) For vessels and vessel sections, the employer shall provide illumination that meets the levels set forth in the table to paragraph (a)(2) or meet ANSI/IESNA RP-7-01 (incorporated by reference, see 1915.5).

(4) When adequate illumination is not obtainable by permanent lighting sources, temporary lighting may be used as supplementation.

(5) The employer shall ensure that neither matches nor open-flame devices are used for lighting.

(b) *Temporary lights.* The employer shall ensure that temporary lights meet the following requirements:

(1) Lights with bulbs that are not completely recessed are equipped with guards to prevent accidental contact with the bulb;

(2) Lights are equipped with electric cords designed with sufficient capacity to safely carry the electric load;

(3) Connections and insulation on electric cords are maintained in a safe condition;

(4) Lights and lighting stringers are not suspended solely by their electric cords unless they are designed by the manufacturer to be suspended in this way;

(5) Lighting stringers do not overload branch circuits;

(6) Branch circuits are equipped with over-current protection with a capacity that does not exceed the rated current-carrying capacity of the cord used;

(7) Splices have insulation with a capacity that exceeds that of the original insulation of the cord; and

(8) Exposed, non-current-carrying metal parts of lights are grounded. The employer shall ensure that grounding is provided either through a third wire in the cord containing the circuit conductors or through a separate wire that is grounded at the source of the current. Grounding shall be done in accordance with the requirements of 29 CFR 1910, subpart S.

(c) *Portable lights.* (1) In any dark area that does not have permanent or temporary lights, where lights are not working, or where lights are not readily accessible, the employer shall provide portable or emergency lights and

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ensure that employees do not enter those areas without such lights.

(2) Where the only means of illumination on a vessel or vessel section are from lighting sources that are not part of the vessel or vessel section, the employer shall provide portable or emergency lights for the safe movement of each employee. If natural sunlight provides sufficient illumination, portable or emergency lights are not required.

(d) *Explosion-proof, self-contained lights.* The employer shall provide and ensure that each employee uses only explosion-proof, self-contained temporary and portable lights, approved for hazardous conditions by a nationally recognized testing laboratory (NRTL), in any area that the atmosphere is determined to contain a concentration of flammable vapors that are at or above 10 percent of the lower explosive limit (LEL) as specified in 29 CFR part 1915, subparts B and C.

§ 1915.83 Utilities.

(a) *Steam supply system.* (1) The employer shall ensure that the vessel's steam piping system, including hoses, is designed to safely handle the working pressure prior to supplying steam from an outside source. The employer shall obtain a written or oral determination from a responsible vessel's representative, a contractor, or any other person who is qualified by training, knowledge, or experience to make such determination that the working pressure of the vessel's steam piping system is safe.

(2) The employer shall ensure that each outside steam supply connected to a vessel's steam piping system meets the following requirements:

(i) A pressure gauge and a relief valve are installed at the point where the temporary steam hose joins the vessel's steam piping system;

(ii) Each relief valve is set to relieve excess steam at, and is capable of relieving steam at, a pressure that does not exceed the safe working pressure of the system in its present condition;

(iii) There are no means of inadvertently disconnecting any relief valve from the system that it protects;

(iv) Each pressure gauge and relief valve is legible and located so it is visible and readily accessible; and